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EXAMINER	
BUTLER, MICHAEL E	
ART UNIT	**PAPER NUMBER**
3653	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	**Application No.** 10/685,260	**Applicant(s)** POLLARD ET AL.
	Examiner Michael Butler	**Art Unit** 3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 22 January 2007.
2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 29-46 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) 29-46 is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☐ All b)☐ Some * c)☐ None of:
1.☐ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action, and apply to this and any subsequent Office Actions.

Priority

1. Applicant's claim of priority to application 09934940 filed 8/22/01 which claims priority as a continuation to application 60306782 filed 7/20/01 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 29, 33, 35, 36, 40, 41, 42, 43, 44, 45, 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Saito et al. '326 (6443326) which discloses all the claimed elements including:

> (Re: cl 29) A device for singulating articles from a bulk supply of such articles, comprising:
> a housing of holding articles to be singulated 2a,
> an exit channel fluidly (4b/4d fig 1) connected to the housing and configured in cross-section to permit the passage of a single article at a time, the exit channel including a forwardly-directed jet aperture and a rearwardly directed jet aperture (c4 L 28–c5 L 8; 2d;
> a first positive pressure source fluidly connected to the forwardly-directed jet aperture(4e);
> a second positive pressure source fluidly collected to the rearwardly-directed jet; and a controlled operatively connected with the first and second positive pressure sources that selectively controls the application of positive pressure to the forwardly-directed jet apertures and rearward jet aperture (2d)

(Re: cl 32) wherein the first, second and third positive pressure sources are coincident (14e)
(Re: cl 33)wherein the first and second positive pressure sources are coincident (input from 1)
(Re: cl 35) wherein the housing includes a floor and an opposing ceiling, and wherein the floor includes a first foraminous member and the ceiling includes a second foraminous member (whenver lid is off)
(Re: cl 36) further comprising an article-orienting member positioned upstream of the exit channel (c4 L 25-55)
(Re: cl 40) further comprising a plurality of substantially identical articles to be singulated, the articles being stored in the housing (p)
(Re: cl 41) An article-orienting singulating device, comprising',
a housing having a foraminous floor (2d);
an exit channel attached to and fluidly connected with the housing (4b);
an article-orienting unit positioned adjacent an upstream portion of the exit channel (sloped base of hopper & channel);
wherein the article-orienting unit and the exit channel upstream portion define an entry space that permits an article to enter only in a longitudinal orientation in which the longest dimension thereof is generally parallel to a downstream flow path; and wherein the article-orienting unit and the exit channel upstream portion are spaced such than an article that enters the entry space in a transverse orientation in which its longest dimension is generally perpendicular to the downstream flow path and that strikes the article- orienting units caused to re-orient itself to a longitudinal orientation and pass into the exit channel (c4 L 28–c5 L 8; fig 1, P longitudinally oriented in channel)
wherein the article-orienting unit is configured to be adjustable in cross-section to accommodate articles of different sizes (in figure 18 vs. fig 19, the hopper funnels the articles into the channel , the stirring mechanism 24 which has a funnel reciprocates in the vertical direction to at times mate with the hopper base forming a large cross sectional channel area to raise the funnel above the hopper base forming smaller cross sectional channel area)
(Re: cl 42) further comprising a plurality of substantially identical articles to be singulated, the articles being stored in the housing (p; c4 L 26-40)
(Re: cl 43) wherein the articles are generally oblong and have a longitudinal dimension, a first traverse dimension and a second traverse dimension that is less than the longitudinal dimension and greater than the first transverse dimension, and wherein the entry space is defined by a first distance and a second distance larger than an perpendicular to the first distance, and wherein the first distance is greater than the first traverse dimension and less than the smaller of the second transverse dimension and two times the first transverse dimension, and the second distance is greater than the second transverse dimension and less than the smaller of the longitudinal dimension and two times the second transverse dimension, such that articles may pass into the exit channel through the article-orienting unit one at a time in a longitudinal orientation in which the first transverse dimension is generally parallel with the first distance, and the second transverse dimension is generally parallel with the second distance (4b/4d fig 1)

(Re: cl 44) wherein the articles are generally oblong and have a longitudinal dimension, a first transverse dimension and a second transverse dimension that is less than the longitudinal dimension and greater than the first transverse dimension, and wherein the entry space is defined by a first distance and a second distance larger than and perpendicular to the first distance, and wherein the first distance is greater than the second transverse dimension and less than the smaller of the longitudinal dimension and two times the first transverse dimension, and the second distance is greater the second transverse dimension and less than the smaller of the longitudinal dimension and two times the first transverse dimension, such that articles may pass through the article-orienting device into the exit channel one at a time in multiple longitudinal orientations (c4 L 28- c5 L 8)
(Re: cl 45) wherein the exit channel is sized and configured such that only one article can pass through any cross- section thereof at a time (fig 1)
(Re: cl 46) further comprising a pressure source fluidly connected with the housing, the pressure source being configured to draw air through the foraminous
floor into the housing, thereby agitating the articles contained therein (2d fig 1)

4. Claims 29, 33, 35, 36, 40, 41, 42, 43, 44, 45, 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito et al. '323 (JP 11171323 A), as evidenced by citations in its chronologically junior US English language equivalent Saito et al. '326 (US 6443326) in the preceding paragraph, which discloses all the claimed elements of the cited claims.

5. Claims 41-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Ernest (3414111) which discloses all the claimed elements including:

(Re: cl 41) An article-orienting singulating device, comprising:
a housing having a foraminous floor (c2 L 15-65);
an exit channel attached to and fluidly connected with the housing (c2 L 15-65);
an article-orienting unit positioned adjacent an upstream portion of the exit channel (c3 L 7-16)
wherein the article-orienting unit and the exit channel upstream portion define an entry space that permits an article to enter only in a longitudinal orientation in which the longest dimension thereof is generally parallel to a downstream flow path (c2 L 69-c3 L 67)
and wherein the article-orienting unit and the exit channel upstream portion are spaced such than an article that enters the entry space in a transverse orientation in which its longest dimension is generally perpendicular to the downstream flow path and that strikes the article- orienting units caused to re-orient itself to a longitudinal orientation and pass into the exit channel (c2 L 69-c3 L 67)

wherein the article-orienting unit is configured to be adjustable in cross-section to accommodate articles of different sizes (c3 L 7-16)
(Re: cl 42) (41), further comprising a plurality of substantially identical articles to be singulated, the articles being stored in the housing (c 3 L 23-41)
(Re: cl 43) (42), wherein the articles are generally oblong and have a longitudinal dimension, a first traverse dimension and a second traverse dimension that is less than the longitudinal dimension and greater than the first transverse dimension, and wherein the entry space is defined by a first distance and a second distance larger than an perpendicular to the first distance, and wherein the first distance is greater than the first traverse dimension and less than the smaller of the second transverse dimension and two times the first transverse dimension, and the second distance is greater than the second transverse dimension and less than the smaller of the longitudinal dimension and two times the second transverse dimension, such that articles may pass into the exit channel through the article-orienting unit one at a time in a longitudinal orientation in which the first transverse dimension is generally parallel with the first distance, and the second transverse dimension is generally parallel with the second distance (c 3 L 23-41)
(Re: cl 44) (42), wherein the articles are generally oblong and have a longitudinal dimension, a first transverse dimension and a second transverse dimension that is less than the longitudinal dimension and greater than the first transverse dimension, and wherein the entry space is defined by a first distance and a second distance larger than and perpendicular to the first distance, and wherein the first distance is greater than the second transverse dimension and less than the smaller of the longitudinal dimension and two times the first transverse dimension, and the second distance is greater than the second transverse dimension and less than the smaller of the longitudinal dimension and two times the first transverse dimension, such that articles may pass through the article-orienting device into the exit channel one at a time in multiple longitudinal orientations (c 3 L 23-41).
(Re: cl 45)42, wherein the exit channel is sized and configured such that only one article can pass through any cross- section thereof at a time (c2 L 69-c3 L 67).

6. Claims 41-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Walle 4014429

which discloses all the claimed elements including:

(Re: cl 41) An article-orienting singulating device, comprising;
a housing having a foraminous floor (fig 3)
an exit channel attached to and fluidly connected with the housing (21 fig 3)
an article-orienting unit positioned adjacent an upstream portion of the exit channel (c3 L 25-50)
wherein the article-orienting unit and the exit channel upstream portion define an entry space that permits an article to enter only in a longitudinal orientation in which the longest dimension thereof is generally parallel to a downstream flow path (c3 L 25-50) and wherein the article-orienting unit and the exit channel upstream portion are spaced such than an article that enters the entry space in a transverse orientation in which its

longest dimension is generally perpendicular to the downstream flow path and that strikes the article- orienting units caused to re-orient itself to a longitudinal orientation and pass into the exit channel,
wherein the article-orienting unit is configured to be adjustable in cross-section to accommodate articles of different sizes (C3 L 51-65)
(Re: cl 42) (41), further comprising a plurality of substantially identical articles to be singulated, the articles being stored in the housing C3 L 51-65)
(Re: cl 43) (42), wherein the articles are generally oblong and have a longitudinal dimension, a first traverse dimension and a second traverse dimension that is less than the longitudinal dimension and greater than the first transverse dimension, and wherein the entry space is defined by a first distance and a second distance larger than an perpendicular to the first distance, and wherein the first distance is greater than the first traverse dimension and less than the smaller of the second transverse dimension and two times the first transverse dimension, and the second distance is greater than the second transverse dimension and less than the smaller of the longitudinal dimension and two times the second transverse dimension, such that articles may pass into the exit channel through the article-orienting unit one at a time in a longitudinal orientation in which the first transverse dimension is generally parallel with the first distance, and the second transverse dimension is generally parallel with the second distance (C3 L 51-65, adjustable to fit such articles)
(Re: cl 44) (42), wherein the articles are generally oblong and have a longitudinal dimension, a first transverse dimension and a second transverse dimension that is less than the longitudinal dimension and greater than the first transverse dimension, and wherein the entry space is defined by a first distance and a second distance larger than and perpendicular to the first distance, and wherein the first distance is greater than the second transverse dimension and less than the smaller of the longitudinal dimension and two times the first transverse dimension, and the second distance is greater than the second transverse dimension and less than the smaller of the longitudinal dimension and two times the first transverse dimension, such that articles may pass through the article-orienting device into the exit channel one at a time in multiple longitudinal orientations (C3 L 51-65, adjustable to fit such articles)
(Re: cl 45)42, wherein the exit channel is sized and configured such that only one article can pass through any cross- section thereof at a time (C3 L 51-65, adjustable to fit such articles)
(Re: cl 46) 42, further comprising a pressure source fluidly connected with the housing, the pressure source being configured to draw air through the foraminous floor into the housing, thereby agitating the articles contained therein (C3 L 11-25; c4 L 1-42).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim(s) 29-30, 33, 35, 36, 40, 41, 42, 43, 44, 45, 46 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al.'323 in view of Ayers et al. 4223751 wherein the former discloses the elements previously discussed the latter discloses any elements not inherently taught by the former including:

> (Re: cl 30) 29, further comprising a sensor operatively associated with the controller that detects articles passing through the exit channel (44)

It would have been obvious for Saito et al. to include sensor in the channel to control pressure sources as taught by Ayers et al. and come up with the instant invention as claimed.

9. Claim(s) 29, 31-32, 33, 35, 36, 40, 41, 42, 43, 44, 45, 46 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. '323 in view of Chooi et al. 6039512 wherein the former discloses the elements previously discussed the latter discloses any elements not inherently taught by the former including:

> (Re: cl 31) further comprising a second forwardly-directed jet aperture located downstream of the rearwardly-directed aperture, the forwardly-directed aperture being fluidly corrected with a third positive pressure source and with the controller (18)
> (Re: cl 32) wherein the first, second and third positive pressure sources are coincident (c3 L 24-49; s1, s2, s3)
> (Re: cl 34) wherein the housing includes a jet aperture directed toward the exit channel, the jet being fluidly connected to a fourth positive pressure source, the fourth positive pressure source being operatively connected to the controller (c3 L 24-49; s1, s2, s3)
> (Re: cl 35) wherein the housing includes a floor and an opposing ceiling, and wherein the floor includes a first foraminous member and the ceiling includes a second foraminous member (top of 2 in fig 1 above)

It would have been obvious for Saito et al. '323 to include sensor in the channel to control pressure sources as taught by Ayers et al. and come up with the instant invention as claimed.

10. Claim(s) 29, 31-32, 33, 34-35, 36, 40, 41, 42, 43, 44, 45, 46 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. '323 in view of Teoh et al. 6116821 wherein the former discloses the elements previously discussed the latter discloses any elements not inherently taught by the former including:

> (Re: cl 31) further comprising a second forwardly-directed jet aperture located downstream of the rearwardly-directed aperture, the forwardly-directed aperture being fluidly corrected with a third positive pressure source and with the controller (18)
> (Re: cl 32) wherein the first, second and third positive pressure sources are coincident (c3 L 24-49)
> (Re: cl 34) wherein the housing includes a jet aperture directed toward the exit channel, the jet being fluidly connected to a fourth positive pressure source, the fourth positive pressure source being operatively connected to the controller (c7 L 50-66)
> (Re: cl 35)wherein the housing includes a floor and an opposing ceiling, and wherein the floor includes a first foraminous member and the ceiling includes a second foraminous member (top of 2 in fig 1 above).

It would have been obvious for Saito et al. to include an additional forward jet to supplement the chip propulsion in the channel as taught by Teoh et al and come up with the instant invention. It would have been obvious for Saito et al. to coincide the additional sources to minimize hardware as taught by Teoh et al and come up with the instant invention. It would have been obvious for Saito et al. to include 4 sources to propel chips at all positions in the output channel as taught by Teoh et al and come up with the instant invention. It would have been obvious for Teoh et al. to use foraminous members in the ceiling to evacuate pressure from the magazine as taught by Kubota et al. al. and come up with the instant invention.

11. Claim(s) 29, 31-32, 33, 34-35, 36, 40, 41, 42, 43, 44, 45, 46 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al. '323 in view of Kubota et 4953749 wherein the former discloses the elements previously discussed the latter discloses any elements not inherently taught by the former including:

> (Re: cl 31)further comprising a second forwardly-directed jet aperture located downstream of the rearwardly-directed aperture, the forwardly-directed aperture being fluidly corrected with a third positive pressure source and with the controller (9)
> (Re: cl 32) wherein the first, second and third positive pressure sources are coincident (c7 L 65- c8 L 9)
> (Re: cl 34) the jet being fluidly connected to a fourth positive pressure source, the fourth positive pressure source being operatively connected to the controller (5,5,9,14 fig 9)
> (Re: cl 35) wherein the housing includes a floor and an opposing ceiling, and wherein the floor includes a first foraminous member and the ceiling includes a second foraminous member (42)
> (Re: cl 37-39) wherein said first positive pressure sources and said forwardly-directed jet aperture are configured to direct a jet of between about 1 and 500 psi into the exit channel (c 7 L 42-49).

It would have been obvious for Saito et al. '323 to include an additional forward jet to supplement the chip propulsion in the channel as taught by Kubota et al. al. and come up with the instant invention. It would have been obvious for Saito et al. to coincide the additional sources to minimize hardware as taught by Kubota et al. al. and come up with the instant invention. It would have been obvious for Saito et al. to include 4 sources to propel chips at all positions in the output channel as taught by Kubota et al. al. and come up with the instant invention. It would have been obvious for Saito et al. to use foraminous members in the ceiling to evacuate pressure from the magazine as taught by Kubota et al. al. and come up with the instant invention. It would have been obvious for Saito et al. to use sub atmospheric pressures to reverse pressure flow and dislodge jammed chips as taught by Kubota et al. and come up with the instant invention.

12. Claim(s) is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al.'323 in view of Harper et al. 5725160 wherein the former discloses the elements previously discussed the latter discloses any elements not inherently taught by the former including:

> (Re: cl 37-38) wherein said first positive pressure sources and said forwardly-directed jet aperture are configured to direct a jet of between about 1 and 500 psi into the exit channel (c1 L 32-41)

It would have been obvious for Saito et al. to use variable sub and super atmospheric pressures to reverse pressure flow and dislodge jammed chips as taught by Harper et al. and come up with the instant invention.

13. Claim(s) is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al.'323 in view of Porterfield et al. 4769904 wherein the former discloses the elements previously discussed the latter discloses any elements not inherently taught by the former including:

> (Re: cl 37-38) wherein said first positive pressure sources and said forwardly-directed jet aperture are configured to direct a jet of between about 1 and 500 psi into the exit channel (c9 L 1-45)

It would have been obvious for Saito et al. to use variable sub and super atmospheric pressures to reverse pressure flow and dislodge jammed chips as taught by Porterfield et al. and come up with the instant invention.

Double Patenting

14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed.

Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Claims 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40 are rejected under the judicially created doctrine of double patenting over claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 17, 18, 19, 21 respectively of U. S. Patent No. 6631826 to Pollard et al. since the claims, if allowed, would improperly subject applicants to harassment from multiple assignees and an undue timewise extension of protection. Pollard et al. '826 claims the elements claimed in the instant application claim the elements of the parent application claims but for the audio signal. The instant cited claims fully encapsulate the narrower cited claims in the parent application, and hence are fully obviated by the claims in the parent patent bearing every limitation of the broader claims of the instant application.

Response to Amendments/Arguments

16. The applicant's arguments have been fully considered but they are unpersuasive in overcoming the rejections under 35 USC 112 second paragraph.

The applicant's arguments have been fully considered but they are unpersuasive in overcoming the prior art rejections. Regarding claim 29 and dependent claims, the requirement is for the exit channel to PERMIT passage of a single article at a time the limitation of which would be satisfied with a passage permitting a minimum of a single article at a time as well as a plurality of articles at a time. There is no language in the claim proscribing a maximum cross section limit.

However, a maximum claim limit could even be met with a single chokepoint rather than a cross section throughout the channel that has a maximum cross sectional diameter. A narrow cross section in the down stream portion as in the Saito et al. references limits the exit channel to a maximum of a single article at a plurality of locations including the exit.

Regarding claim 41 and dependent claims, in figure 18 vs. fig 19 of Saito et al. '326, the hopper funnels the articles into the channel, the stirring mechanism 24 which has a funnel reciprocates in the vertical direction to at times mate with the inclined hopper base forming a large cross sectional channel area vs. the mechanism 24 when elevated above the hopper base forming smaller cross sectional channel area when it does not mate with the hopper inclined bottom.

Contrary to applicant's assertion, there is no terminal disclaimer that has been filed contemporaneously with the response nor any earlier terminal disclaimer nor any terminal disclaimer fee payment. As such the double patenting rejection remains on claims 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40. However, applicant's amendment to claim 41 was sufficient to overcome the double patenting rejection to claims 41, 42, 43, 44, and 45.

Conclusion

17. **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exmr. Michael E. Butler whose telephone number is (571) 272-6937.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey, can be reached on (571) 272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mek
4/16/07

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SUPERVISORY PATENT EXAMINER
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